

AMENDMENTS TO THE CLAIMS

1-2. (Cancelled)

3. (Currently amended) A plant-produced heavy chain (HC) or light chain (LC) of an immunoglobulin, wherein the immunoglobulin is an IgA molecule specific to herpes simplex virus; and wherein the HC or LC has a glycopeptide profile comprising at least one glycopeptide which lacks fucose, the at least one glycopeptide containing a glycan that is 2Man, 2GlcNAc, 1Xyl, in which Man = Mannose, GlcNAc = N-acetylglucosamine, and Xyl = xylose, wherein 2Man, 2GlcNAc, 1Xyl has the structure set forth in Figure 12, item 2.

4. (Original) The HC of claim 3, wherein the at least one glycopeptide comprises an asparagine (Asn) residue in the CH2 region.

5. (Currently amended) A plant-produced immunoglobulin, wherein the immunoglobulin has a free glycan profile comprising at least one glycan which lacks fucose, the glycan being 2Man, 2GlcNAc, 1Xyl, in which Man = Mannose, GlcNAc = N-acetylglucosamine, and Xyl = xylose, wherein 2Man, 2GlcNAc, 1Xyl has the structure set forth in Figure 12, item 2, and wherein the immunoglobulin is an IgA molecule specific to herpes simplex virus.

6. (Original) The immunoglobulin of claim 5, wherein the immunoglobulin comprises an asparagine (Asn) residue.

7. (Original) The immunoglobulin of claim 5, wherein the glycan profile is the same as or substantially the same as that provided in Figure 12.

8. (Currently amended) The immunoglobulin of claim 5, wherein the glycan profile further comprises a glycan selected from the group consisting of 3Man, 2GlcNAc, 1Xyl having the structure set forth in Figure 12, item 1; 3Man, 3GlcNAc, 1Xyl having the structure set forth in Figure 12, item 5; 3Man, 2GlcNAc having the structure set forth in Figure 12, item 6; 3Man, 3GlcNAc having the structure set forth in Figure 12, item 7; 4Man, 2GlcNAc having the structure set forth in Figure 12, item 8; 5 Man, 2GlcNAc having the structure set forth in Figure 12, item 9; and 6Man, 2GlcNAc having the structure set forth in Figure 12, item 10, wherein Man = Mannose, GlcNAc = N-acetylglucosamine and Xyl = xylose.

9. (Cancelled)

10. (Withdrawn) The immunoglobulin of claim 5, wherein the glycan profile is the same as or substantially the same as one of the glycan profiles provided in Figure 16.

11. (Currently amended) The immunoglobulin of claim 5, wherein the glycan profile further comprises 3Man, 2GlcNAc having the structure set forth in Figure 12, item 6; and 3Man, 2GlcNAc, 1Xyl having the structure set forth in Figure 12, item 1, wherein Man = Mannose, GlcNAc = N-acetylglucosamine and Xyl = xylose.

12. (Currently amended) The immunoglobulin of claim 5, wherein the glycan profile further comprises 8Man, 2GlcNAc; 3Man, 2GlcNAc, 1Xyl; 4Man, 2GlcNAc, 1Xyl; 5Man, 2GlcNAc; 6Man, 2GlcNAc; 7Man, 2GlcNAc; 3Man, 3GlcNAc, 1Xyl; or 4Man, 2GlcNAc, wherein Man = Mannose, GlcNAc = N-acetylglucosamine and Xyl = xylose, and wherein 3Man, 2GlcNAc, 1Xyl has the structure set forth in Figure 12, item 1, 5Man, 2GlcNAc has the structure set forth in Figure 12, item 9, 6Man, 2GlcNAc has the structure set forth in Figure 12, item 10, 3Man, 3GlcNAc, 1Xyl has the structure set forth in Figure 12, item 5, and 4Man, 2GlcNAc has the structure set forth in Figure 12, item 8.

13-24. (Cancelled)

25. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin comprises an asparagine (Asn) residue in the CH2 region.

26. (Previously presented) The immunoglobulin of claim 5, wherein its glycan profile is determined using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-Tof MS) analysis of free N-linked glycans enzymatically-released from the immunoglobulin.

27-37. (Cancelled)

38. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin is a human immunoglobulin.

39. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin comprises a heavy chain lacking a tailpiece.

40-41. (Cancelled)

42. (Previously presented) The plant-produced immunoglobulin heavy chain (HC) or light chain (LC) of claim 3, wherein the heavy chain of the immunoglobulin lacks a tailpiece.

43-44. (Cancelled)

45. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin is isolated from the plant used to produce the immunoglobulin.

46-47. (Cancelled)

48. (Previously presented) The immunoglobulin of claim 5, comprising an amino acid fragment lacking an attached glycan with fucose, wherein the immunoglobulin has an attached glycan with fucose on the same amino acid fragment or on substantially the same amino acid fragment when the immunoglobulin is mammalian-produced.

49. (Cancelled)

50. (Previously presented) The immunoglobulin of claim 5, comprising an amino acid fragment having an attached glycan lacking fucose, wherein the immunoglobulin also lacks an attached glycan with fucose on the same amino acid fragment or on substantially the same amino acid fragment when the immunoglobulin is mammalian-produced.

51. (Cancelled)

52. (Previously Presented) The immunoglobulin of claim 48, wherein the mammalian-produced immunoglobulin is produced in a CHO cell.

53. (Previously Presented) The immunoglobulin of claim 48, wherein the plant-produced immunoglobulin is produced in a maize cell and the mammalian-produced immunoglobulin is produced in a CHO cell.

54-66. (Cancelled)

67. (Withdrawn) A method of producing an isolated a monomeric anti-herpes simplex virus antibody comprising: (i) introducing into a plant cell nucleic acids having either SEQ ID NO: 1 or either SEQ ID NO: 5 and SEQ ID NO: 9 or SEQ ID NO: 13, each of which is operably-linked to a promoter, to produce a transformed plant cell; (ii) culturing the transformed plant cell to express the introduced nucleic acids; and (iii) isolating the monomeric anti-herpes simplex virus antibody produced by the plant cell.

68. (Withdrawn) The method of claim 67 further comprising regenerating a transformed plant from the transformed plant cell.

69-74. (Cancelled)

75. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin comprises a heavy chain comprising the amino acid sequence of SEQ ID NO: 6.

76. (Previously presented) The immunoglobulin of claim 5, wherein the immunoglobulin comprises a light chain comprising the amino acid sequence of SEQ ID NO: 14.

77. (Cancelled)